

2. Some Falkland Island Spiders.

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(Plates I. & II.*)

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The small collection of spiders from the Falkland Islands described below was brought to this country by Mr. Rupert Vallentin, who has been good enough to afford me the opportunity of examining them.

Connected generically with Patagonia and the Magellanic Region, they are all apparently new species. Gathered as they have been over a period of two years, they comprise only six species of spiders and one Opilio, of Sorensen's genus *Sadocus*, with a fair number of specimens of some of the species.

Three of these are Argiopidæ which are easily conveyed by the wind, and supply no argument for a former land connection between these islands and the mainland of America.

Family ARGIOPIDÆ.

Group ARGIOPEÆ.

Genus ARANEUS Clerck.

ARANEUS VALLENTINI, sp. n. (Pl. I. figs. 3-3 c.)

The colour as seen in specimens taken from spirit is as follows:—

Cephalothorax pale yellow-brown with longitudinal streaks of long white hair, rather bare on the sides but a pale marginal streak all round. Mandibles pale yellow-brown at the base, dark brown at the apex. The fangs are dark brown at the base, dingy yellow-brown at the points.

* For explanation of the Plates see p. 50.

The lip and maxillæ have broad margins of pale yellow, the outer and lower portions being black-brown, fringes dark grey.

The sternum is black-brown, with upstanding grey hair.

The coxæ of the legs are bright yellow-brown, the femora reddish brown with pale grey hair, the patellæ black-brown, tibiae yellow-brown with dark band at fore end. Metatarsi and tarsi darker yellow, with brown rings and dark brown spines and bristles.

The abdomen is pale yellow-brown on the back and sides, with five pairs of dark muscle-spots on the former, each side of a scalloped pale yellow longitudinal streak reaching from the base to the posterior end. On the under side in front of the genital fold is a wedge-shaped dark streak, narrowing posteriorly, with a narrow dark streak on each side and smaller dark streaks nearer to the rear outside the latter again. The spinnerets and epigyne are black-brown.

Mr. Vallentin has furnished me with a coloured drawing of the specimens when first taken. This shows a greyish-green cephalothorax and bright emerald-green abdomen with white longitudinal streak. The femora are bright crimson, the other joints yellow with brown rings.

The *cephalothorax* is longer than broad, rounded at the sides, convex, with the cephalic part well raised and distinctly separated by lateral depressions from the thoracic part. The hairs are long, pointing forward, and laid in streaks on the cephalic part; on the thoracic they point downwards on the sides and upwards on the marginal streak. From the rear margin as far up as the end of the pars cephalica is a rhomboidal area bare of hair; this, however, is hidden by the overhanging abdomen.

The rear row of *eyes* is slightly recurved seen from above, but straight from in front. The front row strongly recurved from each position.

The four median eyes are raised on a distinct prominence which overhangs the clypeus. They are equal in size, the rear pair a diameter apart; the front pair, 2 diameters apart, are $1\frac{1}{2}$ diameters from the rear. The side eyes are similarly situated on rather large prominences, and are about half a diameter from each other. The *clypeus* is about $1\frac{1}{2}$ diameters of the front median eyes, but curves under the eye-space to the insertion of the mandibles, and vertically is not so much.

The *mandibles* are slightly convex at the base but thence rather straight to the front edge. A few straggling hairs at the base and along the inner edge. The fangs are long and powerful. There are four teeth on the outer margin of the fang-sheath, the third one being stout and twice as long as the others; on the inner margin are three equal teeth of moderate length.

The *lip* is broader than long, oblong at the base to about half of its height, thence sloping to a point anteriorly. This part is all pale. The *maxillæ* are roughly triangular, broadest in front, with very broad pale margins.

The *sternum* is a broad shield-shape, slightly convex, hollowed

in front, with rounded projections at each fore corner. It narrows to a point posteriorly, where there are two little round bosses, one each side; in front of each coxa it is incurved, and there is a raised hump.

The *legs* are moderately thick in the femoral, patellar, and tibial joints, the latter being thickened at the anterior end; the metatarsi and tarsi are cylindrical and much finer. On tibia 1 and 2 are thick upstanding bristles, and a single row of six upstanding spines on the under side. There are about five pectinations on the superior tarsal claws, thin at the base but thickened anteriorly. The femoral joint of the *palpi* is short; the tibial joint is longer than the patellar, and there are upstanding bristles and spines on the distal joint. There are several pectinations on the palp-claw.

The *abdomen*, which overhangs the cephalothorax as far as the lower end of the cephalic part, is ovate, convex, rounded in front but slightly pointed. It is widest at about one-third of its length from the base, where there are small corner humps which disappear in some specimens, thence narrowing to a blunt rounded point at the rear end. There are two pairs of large muscle-spots followed by three pairs smaller and less distinct.

The *epigyne* has a scape furnished with two prominent lobes on the lower margin, and a specially long appendix of the *A. productus* type, 2 mm. long, which reaches more than halfway to the membranous base of the spinnerets. The latter are large and well developed, and of the normal type.

The hair covering is short, fine, and downlying, but there is a ring of longer bristly hairs round the base of the spinnerets.

The measurements (in millimetres) are as follows:—

		Long.	Broad.		
Cephalothorax...		$4\frac{1}{2}$	$\left\{ \begin{array}{l} 1\frac{3}{4} \\ 3\frac{1}{2} \end{array} \right.$ in front.		
Abdomen.....		$11\frac{1}{2}$	10		
Mandibles		2			
			Trochanter	Patella	Metatarsus
		Coxa.	& femur.	& tibia.	& tarsus.
Legs	1.	$1\frac{1}{2}$	5	$5\frac{1}{2}$	5 = 17
	2.	$1\frac{1}{2}$	5	5	$4\frac{1}{2}$ = 16
	3.	1	$3\frac{1}{2}$	3	3 = $10\frac{1}{2}$
	4.	$1\frac{1}{4}$	5	5	4 = $15\frac{1}{4}$
Palpi		$\frac{3}{4}$	2	2	2 = $6\frac{3}{4}$

There are numerous specimens of females but no males. The species is said to be common about the Camp. There was a green-coloured egg-sac with the specimens but it was torn out of shape.

ARANEUS GLOBIGER, sp. n. (Pl. I. figs. 4-4 e.)

Male. Cephalothorax dingy yellow-brown, lightest on the cephalic part, darker on the thoracic, with a marginal stripe again paler. The hairs are long, forward pointing, yellowish

grey. The mandibles are brown at the base and pale yellow brown anteriorly. Fangs pale yellow-grey at the point, browner at their base.

The lip and maxillæ have a margin, equal to half their respective breadths, of pale yellow-grey, the remainder black-brown. The sternum is black-brown with yellow-grey hairs. The legs and palpi are bright yellow, with darker bands, yellowish-grey spines and hair and brown bristles.

The abdomen, both on the upper and under sides, is dark brown irregularly mottled with paler yellow spots not forming any special pattern, and grey hair.

The *cephalothorax* is longer than broad, only slightly convex, straight in front, and is rounded at the sides and rear; it has a short longitudinal fovea behind the cephalic part leading into a broader transverse depression. The cephalic part is bounded by long shallow depressions, and is rather thickly covered with bristly downlying hair all pointing forward; the thoracic part is sparsely covered with shorter hair, with the exception of a marginal stripe which is again more closely covered.

The rear row of *eyes* is straight or, seen from in front, slightly procurved. Both the median four and each side pair of eyes are on one raised prominence overhanging the clypeus in front; the median are equal in size, a diameter apart behind and two diameters in front; the laterals are adjacent, the rear rather larger.

The *clypeus* is narrow.

The *mandibles* are short and flat, with short curved fangs.

The *lip* is broader than long, curved at the sides, pointed at the apex, and less than half the length of the maxillæ. The latter are broadest at the top, curving rather away from where, on the inner side, they meet the lip, and have pale margins half their own width.

The *sternum* is shield-shaped, convex, hollowed from the two front corners, broadest in the middle, pointed at the rear where the rear coxæ are contiguous. The hairs are long, rough, and rather upstanding.

The *legs* are thickly covered with downlying hair, upstanding bristles, and numerous short thick spines. The tibiæ of the first pair are dilated at the anterior end, being there twice the thickness of the metatarsi, and are furnished with short spines. The tibiæ have a single row of short spines on the outer side, besides numerous spines on the inner and under side. The *palpi* are short and slight, with a remarkably large development of bulb stylus and other organs, covering the whole front of the mandibles and standing out at each side; a long elbowed stylus has a projection at the bend. The tibial joint is short and globular, with two long bristles protruding therefrom.

The *abdomen* is roughly quadrangular, longer than broad, narrowed but rounded at the front and rear ends, with angles at the broadest part not quite one-half of the distance from the base to the rear; at these angles are slight rounded prominences

and two smaller ones at the rear end. It overhangs the cephalothorax almost to the end of the cephalic part.

The measurements (in millimetres) are as follows:—

		Long.	Broad.	
Cephalothorax	...	4	$\left\{ \begin{array}{l} 1\frac{3}{4} \text{ in front.} \\ 3 \\ 3\frac{1}{2} \end{array} \right.$	
Abdomen.....		$4\frac{1}{2}$		
Mandibles	.....	$1\frac{3}{4}$		

		Coxa.	Tr. & fem.	Pat. & tib.	Metat. & tars.
Legs.....	1.	1	4	$4\frac{1}{2}$	4
	2.	$\frac{3}{4}$	4	4	4
	3.	$\frac{3}{4}$	$2\frac{1}{2}$	2	$2\frac{1}{4}$
	4.	$\frac{3}{4}$	4	3	$3\frac{1}{2}$
Palpi	.....	$\frac{1}{2}$	1	$\frac{1}{2}$	$2\frac{1}{2}$

There is one male specimen.

An undeveloped female, similarly coloured, has the rear and side prominences much more prominent, and a pale median longitudinal streak down the abdomen on the upper side.

Subfamily TETRAGNATHINÆ.

Genus TETRAGNATHA Latreille.

TETRAGNATHA INSULATA, sp. n. (Pl. II. figs. 6 a-6 e.)

Female. The cephalothorax, mandibles, legs, and palpi pale yellow, the hairing on the latter dark grey; the eyes black, the laterals on black tubercles and black patches behind the rear median. The sternum nearly black at the edges, but yellow in the central streak, with dark grey hair. The abdomen is uniformly dark yellow-grey all over, with dark grey hair.

The *cephalothorax* is longer than broad, the cephalic part being raised and divided off from the thoracic by distinct depressions.

The *eyes* are all equal in size. Both the front and rear row are recurved, the laterals being as far apart from each other as the front and rear medians. The rear median are $1\frac{1}{2}$ diameters apart and $2\frac{1}{2}$ from the laterals. The front median are one diameter apart, $1\frac{1}{2}$ diameters from those of the rear row, and 3 from their laterals. The front median eyes are one diameter distant from the margin of the clypeus.

The *mandible* in the female has on the inner margin of the falx-sheath one tooth at the upper end and two teeth at the lower end, about the level of the top of the maxillæ; on the outer margin there is one tooth at the upper end, and two at the lower end below those on the inner margin.

In the male there are eight teeth on the inner margin of the falx-sheath. Near the upper end of the outer margin are two much larger teeth, of which the second is the longest, and then

after an interval, five about the same size as those on the inner margin but reaching farther down the edge. On the outer side near the fore end is a projection bifurcated at its anterior end.

The sternum, lip, and maxillæ are of the normal type.

The *abdomen* slightly overhangs the cephalothorax, it is broadest at about one-fourth of the distance from the base, thence tapering to the posterior rounded end. On the under side in the female is a raised fold of the skin reaching from the centre of the epigyne to the spinnerets.

The measurements (in millimetres) are as follows:—

Male.

		Long.	Broad.			
Cephalothorax ...		$2\frac{1}{2}$	$\left\{ \begin{array}{l} 1 \text{ in front.} \\ 1\frac{1}{2} \\ 1\frac{1}{2} \end{array} \right.$			
Abdomen.....		5				
Mandibles		2				
				Pat. & tib.	Metat. & tars.	
Legs.....	1.	$\frac{3}{4}$	$6\frac{1}{2}$	7	$8\frac{1}{2}$	= $22\frac{3}{4}$
	2.	$\frac{3}{4}$	$4\frac{1}{2}$	$4\frac{1}{2}$	5	= $14\frac{3}{4}$
	3.	$\frac{1}{2}$	$2\frac{1}{2}$	2	$2\frac{1}{2}$	= $7\frac{1}{2}$
	4.	$\frac{1}{2}$	$4\frac{1}{2}$	4	$4\frac{1}{2}$	= $13\frac{1}{2}$
Palpi.....		$\frac{3}{4}$	$1\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{4}$	= $3\frac{3}{4}$

Patella shorter than tibia.

Female.

		Long.	Broad.			
Cephalothorax ...		$2\frac{1}{2}$	$\left\{ \begin{array}{l} 1\frac{1}{4} \text{ in front.} \\ 2 \end{array} \right.$			
Abdomen.....		7				
Mandibles		$1\frac{1}{2}$				
				Pat. & tib.	Metat. & tars.	
Legs.....	1.	$\frac{3}{4}$	6	$6\frac{1}{2}$	7	= $20\frac{1}{4}$
	2.	$\frac{3}{4}$	4	$4\frac{1}{4}$	$4\frac{1}{2}$	= $13\frac{1}{2}$
	3.	$\frac{1}{2}$	$2\frac{1}{2}$	2	2	= 7
	4.	$\frac{1}{2}$	5	4	4	= $13\frac{1}{2}$
Palpi.....		$\frac{3}{4}$	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{4}$	= 5

Patella much shorter than tibia.

Family CLUBIONIDÆ.

Group CLUBIONEÆ.

Genus PHILISCA E. Simon.

PHILISCA COLULATA, sp. n. (Pl. II. figs. 5-5 d.)

Female. The cephalothorax is dark yellow-brown in the centre of the cephalic part, dark brown at the sides. The thoracic part

is dark yellow-brown, with a narrow darker brown median longitudinal stripe in the anterior portion, and a dark brown marginal stripe; the downlying hairs are yellowish grey, with a few longer upstanding brown hairs over the posterior part.

The mandibles are black-brown, with upstanding grey hairs along the inner side. The fangs black-brown at the base, become bright red towards the anterior end. The lip and maxillæ are yellow-brown with paler edges, brown hairs on these and the sternum, which is much darker, almost black-brown.

At the base of the abdomen, on the upper side, are two pale yellow areas divided by a longitudinal brown median streak, and bounded by brown at the sides and right in front. The median streak reaches to about halfway, where it spreads out into three chevrons followed posteriorly by a uniformly mottled brown area. It is thinly covered all over with yellow-grey downlying hair and brown upstanding bristles.

On the under side a darkly mottled wedge-shaped area broadest in front extends the whole distance from the base to the spinnerets; this is bounded by pale yellow-brown which extends to the dark brown sides.

Legs and palpi dingy yellow, with dark grey hairs and spines.

The *cephalothorax* is longer than broad, convex, straight in front, slightly rounded at the sides, with no side depressions but a quite short median longitudinal fovea at the upper part of the rear slope.

Eyes. The rear row of eyes is slightly procurved; they are about equal in size. The median are two diameters apart and one diameter from their respective laterals. The front row is shorter and straight. The laterals are as large as the rear eyes and slightly more than their diameter therefrom; the median, two-thirds the diameter of the laterals, are their own diameter apart and one-half of the same from the side eyes. The area covered by the four median eyes is broader than long.

The *clypeus* is as broad as the front side eyes.

The *mandibles*, rather stout and broad, are kneed at the base, thence descending perpendicularly. Fangs rather long and strong. Two teeth on the inner margin of the fang-sheath, and one longer between two small on the outer margin.

The *maxillæ* are upright, straight on the inner side, broadest at the upper margin, thence curving inwards to the insertion of the palpi. There is a long tuft of bristles on the upper part of the truncature followed by shorter bristles to the lower end of same.

The *lip* is rather longer than broad and more than half the length of the maxillæ. It is narrowed at the base, just above which it is widest, narrowing to a slightly hollowed truncate anterior end.

The *sternum* is convex, $1\frac{1}{2}$ times longer than broad, straight in front, whence it widens out to the middle and then again narrows to a point between the not quite contiguous rear coxæ.

It is hollowed for each coxa, between which and itself is a marginal space. The base of the lip joins it on the upper edge but not the maxillæ. The rough upstanding hair thereon is thicker near the edge than in the centre.

The *abdomen* is longer than broad, truncate in front, broadest about the middle and pointed at the rear end, where the spinnerets are terminal. It is moderately thickly covered with short upstanding and finer downlying hair. The ventral tracheal fold is rather close behind the spinnerets.

The inferior spinnerets are one-jointed and conical, close together and rising from a membranous base; the superior are longer, flatter and broader, with a short pointed second joint. There is a large well-formed colulus in front of the inferior pair.

The *legs* are moderately stout, the tarsi and metatarsi cylindrical. On the two latter joints of all legs is a scopula with claw-tufts of flat pointed bristles. The two claws have about five pectinations. There are numerous long spines on the upper side of the femora and on the tibial and metatarsal joints.

The *palpi* are rather short and fine, the femoral joints incurved, and spines on the tibial and distal joints. The tibia is longer than the patella.

The measurements (in millimetres) are as follows:—

		Long.	Broad.	
Cephalothorax...	4	{ $1\frac{3}{4}$ in front. 3		
Abdomen.....	6	$3\frac{1}{2}$		
Mandibles	$1\frac{3}{4}$			
		Coxa.	Tr. & fem.	Pat. Metat. & tib. & tars.
Legs	1.	1	3	$3\frac{1}{4}$ 3 = $10\frac{1}{4}$
	2.	1	3	$3\frac{1}{4}$ 3 = $10\frac{1}{4}$
	3.	$\frac{3}{4}$	3	3 3 = $9\frac{3}{4}$
	4.	$1\frac{1}{4}$	4	4 $4\frac{1}{2}$ = $13\frac{3}{4}$
Palpi		$\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{4}$ $1\frac{1}{4}$ = $4\frac{1}{2}$

This would appear to belong to M. Simon's genus *Philisca* from Tierra del Fuego etc. It differs from *P. navarinensis* Tull., to which it approximates, in having the side eyes quite $1\frac{1}{2}$ diameters apart instead of 1 diameter; in having the rear median twice as far from one another as from the side eyes instead of equidistant, and the row procurved instead of straight; the front median decidedly less than three-fourths of the laterals; the second pair of legs as long as the first, instead of shorter; at the rear end of the dark median line on the back three black arrow-headed cross markings instead of testaceous spots; and the fourth pair of legs longer in proportion to the others; the epigyne is also apparently different.

One female found under a stone in Camp.

Family AGALENIDÆ.

Subfamily CYBÆINÆ.

Group CYBÆEÆ.

Genus EMMENOMMA E. Simon.

EMMENOMMA FALKLANDICA, sp. n. (Pl. I. figs. 2-2 b.)

Female. The cephalothorax is yellow-brown, darker in the lateral depressions, black-brown over the eye-space, rather thickly covered with yellowish-grey hair. Mandibles, lip, and maxillæ bright yellow-brown with dark grey hair; fangs dark red-brown; sternum somewhat darker, with a brown median patch and upstanding brown bristles towards the rear.

The abdomen is a greyish yellow, with a pair of black rectangular longitudinal patches on each side of the base and a median black quadrilateral, broadest in the middle and pointed at each end, reaching to rather more than halfway; on each side of this again are longitudinal black patches and two more similar at the rear end. The under side is dingy yellow all over, with pale yellow-grey hairs and brown upstanding bristles.

The legs are rather bright yellow, with dark grey hairs and spines and brown upstanding bristles on the coxæ and under side of the femora, and pale grey rings on the femoral, tibial, and metatarsal joints.

The *cephalothorax* is longer than broad, with about four well-marked depressions on each side, and a long and deep longitudinal fovea reaching from the rear slope to the cephalic part.

The rear row of *eyes* is recurved; the tops of the median pair, which are three-fourths of their diameter apart, reach to the line joining the lower side of the laterals, which are rather more than their diameter away. The front lateral eyes are $1\frac{1}{2}$ times the diameter of the rear median, $1\frac{1}{2}$ times their diameter from one another, and about $1\frac{1}{2}$ times that distance from the rear laterals. The front median are one-fourth the diameter of, and in a line with, the upper edge of the laterals.

The *mandibles* are stout and strong, kneed at the base, where there are long upstanding bristles; at the apex there is a fringe of downlying hair.

The *lip* is about as broad as long, straight in front, and broadest one-third of its height therefrom. The *maxillæ*, slightly bending over the lip, are rounded anteriorly, where they are broadest and about twice the height of the lip.

The *sternum* is shield-shaped, $1\frac{1}{2}$ times as long as broad, hollowed in front and pointed at rear end between the not quite contiguous last pair of coxæ.

The *abdomen* is oval, truncate in front, the hair covering scanty, rather short and fine.

The *legs* are only moderately stout, tarsi and metatarsi cylindrical; long stout spines on the metatarsi and tibiae of all legs. A brush of short bristles, not amounting to a scopula, on the under side of the tarsi.

The superior claws are long and rather straight, with a few pectinations at the basal end only.

The tibial joint of the *palp* is twice as long as the patella, and the distal joint is furnished with spines and bristles.

The measurements (in millimetres) are as follows:—

		Long.	Broad.				
Cephalothorax...	4	$\left\{ \begin{array}{l} 1\frac{3}{4} \\ 3\frac{1}{2} \end{array} \right.$		in front.			
Abdomen.....	6	$3\frac{1}{2}$					
Mandibles	2						
		Coxa.	Tr. & fem.	Pat. & tib.	Metat. & tars.		
Legs.....	1.	1	$3\frac{1}{2}$	$4\frac{1}{4}$	$3\frac{3}{4}$	=	$12\frac{1}{2}$
	2.	1	$3\frac{1}{4}$	4	$3\frac{1}{2}$	=	$11\frac{3}{4}$
	3.	1	$3\frac{1}{4}$	$3\frac{1}{2}$	4	=	$11\frac{3}{4}$
	4.	1	4	$4\frac{1}{4}$	6	=	$15\frac{1}{4}$
Palpi	$\frac{1}{2}$	$\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{2}$	1	=	$4\frac{1}{2}$

This agrees with M. Simon's genus *Emmenomma* from Cape Horn, except as to its median eye area. It differs from *E. oculatum* in this being only $1\frac{1}{2}$ times as long as broad instead of 3 times the width.

One female only.

FAMILY THOMISIDÆ.

SUBFAMILY PHILODROMINÆ.

GENUS PETRICUS E. Simon.

PETRICUS SIGNATUS, sp. n. (Pl. I. figs. 1-1 c.)

Female. Cephalothorax black-brown mottled with dark yellow brown, and scantily covered with downlying flat white hairs; a thick band of same across the front of the clypeus.

Mandibles black-brown, smooth at the base, with a few brown bristly hairs towards the anterior end. Fangs dark yellow-brown. Sternum, lip, and maxillæ patchy dingy yellow-brown, with rough white hair. Coxæ of legs dingy darkish yellow, with dark brown on the under side of the femur, patella, and tibia, and downlying dark hairs and brown upstanding bristles and spines. Metatarsus and tarsus paler yellow, with thick whitish scopula on the latter and anterior part of the former.

The upper side of the abdomen is black-brown with downlying flat white hairs and upstanding brown bristles; a dark longitudinal median stripe extends from the base to about two-

thirds the length, and there are four dark stripes perpendicularly down each side at the rear end. Underneath, dingy dark yellow-brown with thinner whitish downlying hair.

The cephalic part of the *cephalothorax*, which is only slightly longer than broad, is convex, thick, and square anteriorly, separated by a broad shallow depression from the thoracic part, which is also convex and slopes evenly to the margin.

The rear row of *eyes* is straight, or viewed from above slightly recurved, but, owing to the curve of the headline, slightly procurved from in front; it lies on the front margin of the upper part. From this point the forehead falls perpendicularly, so that the recurved front row, two-thirds the length of the rear row, looks straight forward. The laterals of each row are equal in size, each on separate tubercles. The eyes of the rear row are equidistant, the median slightly smaller than the lateral. The front median pair are half the diameter of the side, three of their diameters apart, and two of the same from their laterals. A line drawn across their upper margin lies near but well below that across the lower margin of the laterals. The *clypeus* is as broad as the length of the quadrangle of median eyes, which is twice as long as its breadth.

The *mandibles* are conical, perpendicular, smooth at the base, with patches of bristly hair across the lower end, and on the smooth under side are a few scattered bristles. The fangs are short and strongly curved.

The *lip* is broader than long, widest at the base, narrowing to, and rounded at, the anterior margin. It reaches to more than half the height of the mandibles, which slope over it. These are rounded anteriorly, and the outer margin curves continuously to the insertion of the trochanter of the palps.

The *sternum* is convex, of a broad shield-shape, almost as wide as long, truncate in front, and narrowing to a point posteriorly between the not quite contiguous rear coxæ.

The *abdomen* is ovate, broadest two-thirds of the distance from its base, where it is rounded and has a median longitudinal depression. The downlying flat hairs are slightly plumose, all pointing with their heads to the rear.

The *legs* are moderately fine and even in length, the second pair being only about one-fifth longer than the shortest of the other three pairs, the fourth is slightly longer than the first and third, but they do not vary much. The tarsal and rather thinner metatarsal joints are cylindrical. There are two pairs of long spines and one shorter on the under side of the tibia and metatarsus of each leg. They are rather thickly covered with the same downlying flat pointed hairs as the cephalothorax and abdomen, and a few upstanding bristles, also long upstanding spines.

The scopulæ and claw-tufts on all feet are of the same type of flat pointed, not spatulate, bristles, shorter and more upstanding

than those on the other joints. They are not divided longitudinally as in *Misumena*. The inner of the pair of tarsal claws has about three rather long pectinations on the shaft curving with the curved point of the claw.

The *palpi* are short and fine, with hair and bristles as on the legs, and spines on the tibial joint.

The measurements (in millimetres) of the largest are as follows:—

		Long.		Broad.
Cephalothorax...		$3\frac{1}{2}$		$\left\{ \begin{array}{l} 1\frac{1}{4} \text{ in front,} \\ 3 \end{array} \right.$
Abdomen.....		5		$3\frac{1}{2}$
Mandible.....		$1\frac{1}{4}$		
			Pat. & tib.	Metat. & tars.
Legs.....	1.	1	Tr. & fem. $3\frac{1}{4}$	$3\frac{1}{4}$ $= 10\frac{3}{4}$
	2.	1	4	4 $= 13$
	3.	1	$3\frac{1}{4}$	$3\frac{1}{4}$ $= 11$
	4.	1	$3\frac{1}{4}$	$3\frac{3}{4}$ $= 11\frac{1}{2}$
Palpi	$\frac{1}{2}$	$1\frac{3}{4}$	1	1 $= 4\frac{1}{4}$

This species conforms to M. Simon's genus *Petricus* from South America, and is closer to his *P. niveus* than to any of Mr. Tullgren's species. It differs, however, from the former in its front row of eyes being very clearly recurved instead of slightly; the median are 3 diameters apart instead of one, and nearer to the lateral than to one another instead of equidistant; the lateral eyes of the front and rear rows about 4 diameters apart instead of $1\frac{1}{2}$; the area of the median quadrilateral equally broad in front and rear, instead of much broader in front. The front pair of legs are longer and the others shorter in proportion to the cephalothorax than in *P. niveus*.

There are nine females from various districts, apparently the same but differing in size of adults and brightness of colour.

OPILIONES.

Family GONYLEPTOIDÆ.

Genus SADOUS Sor.

SADOUS VALLENTINI, sp. n. (Pl. II. figs. 7-7c.)

Carapace yellow-brown mottled with black-brown anteriorly, nearly all dark brown at posterior end; eye-tubercle yellow in middle, black-brown at each side.

Trochanters yellow; other joints yellow mottled with black-brown; anterior ends of tarsi of rear two pairs yellow with yellow

claws. Hair generally pale yellow-grey. The under side of the abdomen is paler than the upper side, having more yellow and less dark mottling.

The *eye-tubercle* is oval, twice as broad as long, the eyes being at the extreme side edges. It is situated in the front half of the cephalic part, the portion in front of it being its own width and twice that distance behind.

The thoracic part of the *carapace* is slightly convex with a distinct marginal sulcus all round. There are small globular tubercles in the median area of the cephalic part, but not extending to the sides, reaching from the eye-tubercle to the rear margin. There are smaller sparsely scattered granulations on the second, third, and fourth divisions of the scutum, and a pair of tubercles on the latter. Behind this are four segmental divisions thickly covered with tubercles, succeeded by a posterior broader marginal area, also tuberiferous, which ends, in the female, in a median pointed process as long as the rear trochanters. In what appears to be the male this is wanting. On the under side of the carapace the flat coxal areas of the second and third pairs of legs extend to a narrow sternal depression, those of the first pair to round the mouth-parts. There is a small lower lip above the sternum and movable chitinous maxillæ unconnected with the coxæ of the palps. A much larger upper lip is divided into two parts on the under side by a muscular double wall. On the under side of the tibial joint of the palp are three spinous processes on the outer margin, and four on the inner. On the tarsal joint of same are four spines alternately long and short on the outer side, and three on the inner side of the falx-sheath. The long, slightly curved, movable fang is about the length of the tarsal joint. The mandibles reach up to about the anterior end of the patellar joint of the palp. There are three equal teeth on the inside of the fixed claw, one large between two smaller on the movable claw. The coxal area of each of the fourth pair of legs is twice as broad as the median portion of the thorax lying between them. They extend along each side twice the length of the three anterior coxal areas. At the posterior end of this coxa a chitinous process projects from the outer corner as long as the breadth of the trochanter in the females, and twice that length in the males. Behind this is a round convex boss.

At the posterior end of the median area, lying between the fourth coxæ, are the pulmonary apertures with oval convex lids, and on the inner side between these are a pair of oval hollow depressions.

The three anterior pairs of legs are of about the same diameter, rather slender, all without spines but covered with short hair. On the tarsal joint of the third and fourth pairs are two curved smooth claws. Tarsus 1 has five joints; tarsus 2 eight; tarsus 3 and 4 six each. The trochanteral joint of the fourth pair is as long as broad and thickly covered with spinous tubercles.

The femoral joint is thickly covered with long chitinous spinous processes, which in the male are twice as long as in the female. The patellar joint is enlarged and globular, the other joints are without spines but thickly covered with hair.

The measurements (in millimetres) are as follows:—

		Long.	Broad.		
Cephalic & Sternal	} part of scutum...	2	3		
Abdominal		5	5		
Mandibles	.....	2			
		Coxal part.	Tr. & fem.	Pat. & tib.	Metat. & tars.
Legs.....	1.	$\frac{3}{4}$	3	2	3 = $8\frac{3}{4}$
	2.	1	$3\frac{1}{2}$	$3\frac{1}{2}$	$2\frac{1}{2}$ $2\frac{1}{2}$ = 13
	3.	1	$3\frac{1}{2}$	3	4 = $11\frac{1}{2}$
	4.	3	4	$3\frac{1}{2}$	5 = $15\frac{1}{2}$
Palpi	.....		$1\frac{3}{4}$	$1\frac{1}{2}$	1 = $4\frac{1}{4}$

This differs from *S. vitellinosulcatus* Scr. (believed to have come from S. America and described from a single female) in having a single terminal process above the anal tubercle at the posterior end of the abdomen, instead of a pair of quite small ones; in having the anterior edge of the scutum straight instead of two pointed processes in the middle; in having no spine on the femoral joint of the palpi and no pattern on the back of the abdomen, as well as in its smaller size. There is no process on the eye-tubercle.

One male, 6 females and 2 non-adult, found among decaying roots of ferns.

EXPLANATION OF THE PLATES.

PLATE I.

- Fig. 1. *Petricus signatus*, sp. n., $\times 3$. a. Eyes. b. Lip and maxillæ. c. Epigyne.
 2. *Emmenomma falklandica*, sp. n., $\times 2$. a. Eyes. b. Epigyne.
 3. *Araneus vallentini*, sp. n., nat. size. a. Underside of abdomen. b. Profile.
 c. Front of cephalothorax and eyes. d. Lip and maxillæ. e. Epigyne.
 4. *Araneus globiger*, sp. n., nat. size., ♂. a. Eyes. b. Male palp from side.
 c. Male palp from underneath. d. Tibia II. e. Coxa II.

PLATE II.

- Fig. 5. *Philisca colulata*, sp. n., $\times 2$. a. Eyes. b. Mandible. c. Epigyne.
 d. Spinnerets.
 6. a. Eyes of *Tetragnatha insulata*, sp. n. b. Underside of mandible, ♂.
 c. Fore-end of mandible from above. d. Male palp. e. Epigyne.
 7. *Sadocus vallentini*, sp. n., $\times 2$. a. Underside of carapace. b. Mouth parts.
 c. Mandible and palp.